

IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A ~~data-preprocessor system~~ system for preprocessing input data for a support vector machine ~~having multiple inputs, each of the inputs associated with a portion of the input data,~~ comprising:

a support vector machine, wherein the support vector machine comprises multiple inputs, and wherein each input is associated with a respective portion of input data;

an input buffer for receiving and storing the input data, the input data associated with at least two of the inputs being on different time scales relative to each other;

a time merge device for selecting a predetermined time scale and reconciling the input data stored in the input buffer such that all of the input data for all of the inputs are on the same time scale; and

an output device for outputting the data reconciled by the time merge device as reconciled data, said reconciled data comprising the input data to the support vector machine;

wherein the support vector machine is operable to receive the reconciled data as input data to the multiple inputs, and to generate output data in accordance with the reconciled data.

2. (Original) The data preprocessor of claim 1, wherein the support vector machine comprises a non-linear model having a set of model parameters defining a representation of a system, said model parameters capable of being trained;

wherein the input data comprise training data including target input data and target output data, wherein said reconciled data comprise reconciled training data including reconciled target input data and reconciled target output data, and wherein said reconciled target input data and reconciled target output data are both based on a common time scale; and

wherein the support vector machine is operable to be trained according to a

predetermined training algorithm applied to said reconciled target input data and said reconciled target output data to develop model parameter values such that said support vector machine has stored therein a representation of the system that generated the target output data in response to the target input data.

3. (Original) The data preprocessor of claim 1, wherein the support vector machine comprises a non-linear model having a set of model parameters defining a representation of a system, wherein said model parameters of said support vector machine have been trained to represent said system;

wherein the input data comprise run-time data, and wherein said reconciled data comprise reconciled run-time data; and

wherein the support vector machine is operable to receive said reconciled run-time data and generate run-time output data, wherein said run-time output data comprise one or both of control parameters for said system and predictive output information for said system.

4. (Original) The data preprocessor of claim 3, wherein said control parameters are usable to determine control inputs to said system for run-time operation of said system.

5. (Original) The data preprocessor of claim 1, wherein the input data associated with at least one of the inputs has missing data in an associated time sequence and said time merge device is operable to reconcile said input data to fill in said missing data.

6. (Original) The data preprocessor of claim 1, wherein the input data associated with a first one or more of the inputs has an associated time sequence based on a first time interval, and a second one or more of the inputs has an associated time sequence based on a second time interval; and

wherein said time merge device is operable to reconcile said input data associated with said first one or more of the inputs to said input data associated with said second one or more of the inputs, thereby generating reconciled input data associated with said at least one of the inputs having an associated time sequence based on said second time interval.

7. (Original) The data preprocessor of claim 1, wherein the input data associated with a first one or more of the inputs has an associated time sequence based on a first time interval, and wherein the input data associated with a second one or more of the inputs has an associated time sequence based on a second time interval; and

wherein said time merge device is operable to reconcile said input data associated with said first one or more of the inputs and said input data associated with said second one or more of the inputs to a time scale based on a third time interval, thereby generating reconciled input data associated with said first one or more of the inputs and said second one or more of the inputs having an associated time sequence based on said third time interval.

8. (Original) The data preprocessor of claim 1, wherein the input data associated with a first one or more of the inputs is asynchronous, and wherein the input data associated with a second one or more of the inputs is synchronous with an associated time sequence based on a time interval; and

wherein said time merge device is operable to reconcile said asynchronous input data associated with said first one or more of the inputs to said synchronous input data associated with said second one or more of the inputs, thereby generating reconciled input data associated with said first one or more of the inputs, wherein said reconciled input data comprise synchronous input data having an associated time sequence based on said time interval.

9. (Original) The data preprocessor of claim 1, wherein said input buffer is controllable to arrange the input data in a predetermined format.

10. (Original) The data preprocessor of claim 9, wherein the input data, prior to being arranged in said predetermined format, has a predetermined time reference for all data, such that each piece of input data has associated therewith a time value relative to said predetermined time reference.

11. (Original) The data preprocessor of claim 1, wherein each piece of data has associated therewith a time value corresponding to the time the input data was generated.

12. (Original) The data preprocessor of claim 1, further comprising:
a pre-time merge processor for applying a predetermined algorithm to the input data received by said input buffer prior to input to said time merge device.

13. (Original) The data preprocessor of claim 12, wherein each piece of data has associated therewith a time value corresponding to the time the input data was generated.

14. (Original) The data preprocessor of claim 12, further comprising:
an input device for selecting said predetermined algorithm from a group of available algorithms.

15. (Original) The data preprocessor of claim 1, wherein said output device further comprises a post-time merge processor for applying a predetermined algorithm to the data reconciled by said time merge device prior to output as said reconciled data.

16. (Original) The data preprocessor of claim 15, further comprising:
an input device for selecting said predetermined algorithm from a group of available algorithms.

17. (Original) The data preprocessor of claim 1, wherein the input data comprise a plurality of variables, each of the variables comprising an input variable with an associated set of data wherein each of said variables comprises an input to said input buffer; and
wherein each of at least a subset of said variables comprises a corresponding one of the inputs to the support vector machine.

18. (Original) The data preprocessor of claim 17, further comprising:
a delay device for receiving reconciled data associated with a select one of said input variables and introducing a predetermined amount of delay to said reconciled data to output a delayed input variable and associated set of delayed input reconciled data.

19. (Original) The data preprocessor of claim 18, wherein said predetermined amount of delay is a function of an external variable, the data preprocessor further comprising:

means for varying said predetermined amount of delay as a function of said external variable.

20. (Original) The data preprocessor of claim 18, further comprising:

means for learning said predetermined delay as a function of training parameters generated by a system modeled by the support vector machine.

21. (Original) The data preprocessor of claim 1, further comprising:

a graphical user interface (GUI) which is operable to receive user input specifying one or more data manipulation and/or reconciliation operations to be performed on said input data.

22. (Original) The data preprocessor of claim 21, wherein said GUI is further operable to display said input data prior to and after performing said manipulation and/or reconciliation operations on said input data.

23. (Original) The data preprocessor of claim 21, wherein said GUI is further operable to receive user input specifying a portion of said input data for said data manipulation and/or reconciliation operations.

24. (Currently Amended) ~~A data preprocessor system~~ system for preprocessing input data for a support vector machine ~~having multiple inputs, each of the inputs associated with a portion of the input data,~~ comprising:

a support vector machine, wherein the support vector machine comprises multiple inputs, and wherein each input is associated with a respective portion of input data;

an input buffer for receiving and storing the input data, the input data associated with at least two of the inputs being on different independent variable scales relative to each

other;

a merge device for selecting a predetermined independent variable scale and reconciling the input data stored in the input buffer such that all of the input data for all of the inputs are on the same independent variable scale; and

an output device for outputting the data reconciled by the merge device as reconciled data, said reconciled data comprising the input data to the support vector machine;

wherein the support vector machine is operable to receive the reconciled data as input data to the multiple inputs, and to generate output data in accordance with the reconciled data.

25. (Original) The data preprocessor of claim 24, wherein the support vector machine comprises a non-linear model having a set of model parameters defining a representation of a system, said model parameters capable of being trained;

wherein the input data comprise training data including target input data and target output data, wherein said reconciled data comprise reconciled training data including reconciled target input data and reconciled target output data, and wherein said reconciled target input data and reconciled target output data are both based on a common independent variable scale; and

wherein the support vector machine is operable to be trained according to a predetermined training algorithm applied to said reconciled target input data and said reconciled target output data to develop model parameter values such that said support vector machine has stored therein a representation of the system that generated the target output data in response to the target input data.

26. (Original) The data preprocessor of claim 24, wherein the support vector machine comprises a non-linear model having a set of model parameters defining a representation of a system, wherein said model parameters of said support vector machine have been trained to represent said system;

wherein the input data comprise run-time data, and wherein said reconciled data comprise reconciled run-time data; and

wherein the support vector machine is operable to receive said reconciled run-time

data and generate run-time output data, wherein said run-time output data comprise one or both of control parameters for said system and predictive output information for said system.

27. (Original) The data preprocessor of claim 26, wherein the input data associated with at least one of the inputs has missing data in an associated independent variable sequence; and

wherein said merge device is operable to reconcile said input data to fill in said missing data.

28. (Original) The data preprocessor of claim 24, wherein the input data associated with a first one or more of the inputs has an associated independent variable sequence based on a first interval, and a second one or more of the inputs has an associated independent variable sequence based on a second interval; and

wherein said merge device is operable to reconcile said input data associated with said first one or more of the inputs to said input data associated with said second one or more of the inputs, thereby generating reconciled input data associated with said first one or more of the inputs having an associated independent variable sequence based on said second interval.

29. (Original) The data preprocessor of claim 24, wherein a first one or more of the inputs has an associated independent variable sequence based on a first interval, and wherein the input data associated with a second one or more of the inputs has an associated independent variable sequence based on a second interval; and

wherein said merge device is operable to reconcile said input data associated with said first one or more of the inputs and said input data associated with said second one or more of the inputs to an independent variable scale based on a third interval, thereby generating reconciled input data associated with said first one or more of the inputs and said second one or more of the inputs having an associated independent variable sequence based on said third interval.

30. (Original) The data preprocessor of claim 24, wherein the input data associated

with a first one or more of the inputs is asynchronous with respect to an independent variable, and wherein the input data associated with a second one or more of the inputs is synchronous with an associated independent variable sequence based on an interval; and

wherein said merge device is operable to reconcile said asynchronous input data associated with said first one or more of the inputs to said synchronous input data associated with said second one or more of the inputs, thereby generating reconciled input data associated with said first one or more of the inputs, and wherein said reconciled input data comprise synchronous input data having an associated independent variable sequence based on said interval.

31. (Currently Amended) A method for preprocessing input data prior to input to a support vector machine having multiple inputs, each of the inputs associated with a portion of the input data, the method comprising:

receiving and storing the input data, the input data associated with at least two of the inputs being on different time scales relative to each other;

time merging the input data for the inputs such that all of the input data are reconciled to the same time scale; [[and]]

outputting the reconciled time merged data as reconciled data, the reconciled data comprising the input data to the support vector machine;

providing the reconciled data as input data to the multiple inputs of the support vector machine; and

the support vector machine generating output data in accordance with the reconciled data.

32. (Original) The method of claim 31, wherein the support vector machine comprises a non-linear model having a set of model parameters defining a representation of a system, said model parameters capable of being trained; and

wherein the input data comprise training data including target input data and target output data, wherein said reconciled data comprise reconciled training data including reconciled target input data and reconciled target output data, and wherein said reconciled

target input data and reconciled target output data are both based on a common time scale;

the method further comprising:

training the support vector machine according to a predetermined training algorithm applied to said reconciled target input data and said reconciled target output data to develop model parameter values such that said support vector machine has stored therein a representation of the system that generated the target output data in response to the target input data.

33. (Original) The method of claim 31, wherein the support vector machine comprises a non-linear model having a set of model parameters defining a representation of a system, wherein said model parameters of said support vector machine have been trained to represent said system; and

wherein the input data comprise run-time data, and wherein said reconciled data comprise reconciled run-time data;

the method further comprising:

inputting said reconciled run-time data into the support vector machine to generate run-time output data, wherein said run-time output data comprise one or both of control parameters for said system and predictive output information for said system.

34. (Original) The method of claim 33, wherein said control parameters are usable to determine control inputs to said system for run-time operation of said system.

35. (Original) The method of claim 31, wherein the input data associated with at least one of the inputs has missing data in an associated time sequence; and

wherein said time merging comprises:

reconciling said input data to fill in said missing data.

36. (Original) The method of claim 31, wherein the input data associated with a first one or more of the inputs has an associated time sequence based on a first time interval, and a second one or more of the inputs has an associated time sequence based on a second time interval; and

wherein said time merging comprises:

reconciling said input data associated with said first one or more of the inputs to said input data associated with said second one or more of the inputs, thereby generating reconciled input data associated with said at least one of the inputs having an associated time sequence based on said second time interval.

37. (Original) The method of claim 31, wherein the input data associated with a first one or more of the inputs has an associated time sequence based on a first time interval, and wherein the input data associated with a second one or more of the inputs has an associated time sequence based on a second time interval; and

wherein said time merging comprises:

reconciling said input data associated with said first one or more of the inputs and said input data associated with said second one or more of the inputs to a time scale based on a third time interval, thereby generating reconciled input data associated with said first one or more of the inputs and said second one or more of the inputs having an associated time sequence based on said third time interval.

38. (Original) The method of claim 31, wherein the input data associated with a first one or more of the inputs is asynchronous, and wherein the input data associated with a second one or more of the inputs is synchronous with an associated time sequence based on a time interval; and

wherein said time merging comprises:

reconciling said asynchronous input data associated with said first one or more of the inputs to said synchronous input data associated with said second one or more of the inputs, thereby generating reconciled input data associated with said first one or more of the inputs, wherein said reconciled input data comprise synchronous input data having an associated time sequence based on said time interval.

39. (Original) The method of claim 31, wherein said receiving and storing the input data comprise:

arranging the input data in a predetermined format.

40. (Original) The method of claim 39, wherein, prior to said arranging in said predetermined format, the input data has a predetermined time reference for all data, such that each piece of input data has associated therewith a time value relative to said predetermined time reference.

41. (Original) The method of claim 31, wherein each piece of data has associated therewith a time value corresponding to the time the input data was generated.

42. (Original) The method of claim 31, further comprising:
applying a predetermined algorithm to the input data received by said input buffer prior to said time merging.

43. (Original) The method of claim 42, wherein each piece of data has associated therewith a time value corresponding to the time the input data was generated.

44. (Original) The method of claim 42, further comprising:
selecting said predetermined algorithm from a group of available algorithms.

45. (Original) The method of claim 31, further comprising:
applying a predetermined algorithm to the reconciled time merged data prior to outputting said reconciled time merged data.

46. (Original) The method of claim 45, further comprising:
an input device for selecting said predetermined algorithm from a group of available algorithms.

47. (Original) The method of claim 31, wherein the input data comprise a plurality of variables, each of the variables comprising an input variable with an associated set of data wherein each of said variables comprises an input to said input buffer; and
wherein each of at least a subset of said variables comprises a corresponding one of

the inputs to the support vector machine.

48. (Original) The method of claim 47, further comprising:
receiving reconciled data associated with a select one of said input variables; and
introducing a predetermined amount of delay to said reconciled data to output a
delayed input variable and associated set of delayed reconciled input data.

49. (Original) The method of claim 48, wherein said predetermined amount of delay
is a function of an external variable, the method further comprising:
varying said predetermined amount of delay as a function of said external variable.

50. (Original) The method of claim 48, further comprising:
learning said predetermined delay as a function of training parameters generated by
a system modeled by the support vector machine.

51. (Original) The method of claim 31, further comprising:
a graphical user interface (GUI) receiving user input specifying one or more data
manipulation and/or reconciliation operations to be performed on said input data.

52. (Original) The method of claim 51, further comprising:
the GUI displaying said input data prior to and after performing said manipulation
and/or reconciliation operations on said input data.

53. (Original) The method of claim 51, further comprising:
the GUI receiving user input specifying a portion of said input data for said data
manipulation and/or reconciliation operations.

54. (Currently Amended) A method for preprocessing input data for a support
vector machine having multiple inputs, each of the inputs associated with a portion of the
input data, comprising:

receiving and storing the input data, the input data associated with at least two of the inputs being on different independent variable scales relative to each other;

reconciling the input data stored in the input buffer such that all of the input data for all of the inputs are on the same independent variable scale to generate reconciled data; and

outputting reconciled data, said reconciled data comprising the input data to the support vector machine;

providing the reconciled data as input data to the multiple inputs of the support vector machine; and

the support vector machine generating output data in accordance with the reconciled data.

55. (Original) The method of claim 54, wherein the support vector machine comprises a non-linear model having a set of model parameters defining a representation of a system, said model parameters capable of being trained; and

wherein the input data comprise training data including target input data and target output data, wherein said reconciled data comprise reconciled training data including reconciled target input data and reconciled target output data, and wherein said reconciled target input data and reconciled target output data are both based on a common independent variable scale;

the method further comprising:

training the support vector machine according to a predetermined training algorithm applied to said reconciled target input data and said reconciled target output data to develop model parameter values such that said support vector machine has stored therein a representation of the system that generated the target output data in response to the target input data.

56. (Original) The method of claim 54, wherein the support vector machine comprises a non-linear model having a set of model parameters defining a representation of a system, wherein said model parameters of said support vector machine have been trained to represent said system; and

wherein the input data comprise run-time data, and wherein said reconciled data

comprise reconciled run-time data;

the method further comprising:

inputting said reconciled run-time data into the support vector machine to generate run-time output data, wherein said run-time output data comprise one or both of control parameters for said system and predictive output information for said system.

57. (Original) The method of claim 56, wherein the input data associated with at least one of the inputs has missing data in an associated independent variable sequence; and

wherein said merging comprises:

reconciling said input data to fill in said missing data.

58. (Original) The method of claim 54, wherein the input data associated with a first one or more of the inputs has an associated independent variable sequence based on a first interval, and a second one or more of the inputs has an associated independent variable sequence based on a second interval; and

wherein said merging comprises:

reconciling said input data associated with said first one or more of the inputs to said input data associated with said second one or more of the inputs, thereby generating reconciled input data associated with said first one or more of the inputs having an associated independent variable sequence based on said second interval.

59. (Original) The method of claim 54, wherein a first one or more of the inputs has an associated independent variable sequence based on a first interval, and wherein the input data associated with a second one or more of the inputs has an associated independent variable sequence based on a second interval; and

wherein said merging comprises:

reconciling said input data associated with said first one or more of the inputs and said input data associated with said second one or more of the inputs to an independent variable scale based on a third interval, thereby generating reconciled input data associated with said first one or more of the inputs and said second one or more of the inputs having an associated independent variable sequence based on said third interval.

60. (Original) The method of claim 54, wherein the input data associated with a first one or more of the inputs is asynchronous with respect to an independent variable, and wherein the input data associated with a second one or more of the inputs is synchronous with an associated independent variable sequence based on an interval; and

wherein said merging comprises:

reconciling said asynchronous input data associated with said first one or more of the inputs to said synchronous input data associated with said second one or more of the inputs, thereby generating reconciled input data associated with said first one or more of the inputs, and wherein said reconciled input data comprise synchronous input data having an associated independent variable sequence based on said interval.

61. (Currently Amended) A system for preprocessing input data for a support vector machine ~~having multiple inputs, each of the inputs associated with a portion of the input data~~, comprising:

a support vector machine, wherein the support vector machine comprises multiple inputs, and wherein each input is associated with a respective portion of input data;

means for receiving and storing the input data, the input data associated with at least two of the inputs being on different independent variable scales relative to each other;

means for reconciling the input data stored in the input buffer such that all of the input data for all of the inputs are on the same independent variable scale to generate reconciled data; and

means for outputting reconciled data, said reconciled data comprising the input data to the support vector machine;

wherein the support vector machine is operable to receive the reconciled data as input data to the multiple inputs, and to generate output data in accordance with the reconciled data.

62. (Original) The system of claim 61, wherein the support vector machine comprises a non-linear model having a set of model parameters defining a representation of

a system, said model parameters capable of being trained; and

wherein the input data comprise training data including target input data and target output data, wherein said reconciled data comprise reconciled training data including reconciled target input data and reconciled target output data, and wherein said reconciled target input data and reconciled target output data are both based on a common independent variable scale;

the system further comprising:

means for training the support vector machine according to a predetermined training algorithm applied to said reconciled target input data and said reconciled target output data to develop model parameter values such that said support vector machine has stored therein a representation of the system that generated the target output data in response to the target input data.

63. (Original) The system of claim 61, wherein the support vector machine comprises a non-linear model having a set of model parameters defining a representation of a system, wherein said model parameters of said support vector machine have been trained to represent said system; and

wherein the input data comprise run-time data, and wherein said reconciled data comprise reconciled run-time data;

the system further comprising:

means for inputting said reconciled run-time data into the support vector machine to generate run-time output data, wherein said run-time output data comprise one or both of control parameters for said system and predictive output information for said system.

64. (Original) The system of claim 63, wherein the input data associated with at least one of the inputs has missing data in an associated independent variable sequence; and

wherein said means for merging comprises:

means for reconciling said input data to fill in said missing data.

65. (Original) The system of claim 61, wherein the input data associated with a first

one or more of the inputs has an associated independent variable sequence based on a first interval, and a second one or more of the inputs has an associated independent variable sequence based on a second interval; and

wherein said means for merging comprises:

means for reconciling said input data associated with said first one or more of the inputs to said input data associated with said second one or more of the inputs, thereby generating reconciled input data associated with said first one or more of the inputs having an associated independent variable sequence based on said second interval.

66. (Original) The system of claim 61, wherein a first one or more of the inputs has an associated independent variable sequence based on a first interval, and wherein the input data associated with a second one or more of the inputs has an associated independent variable sequence based on a second interval; and

wherein said means for merging comprises:

means for reconciling said input data associated with said first one or more of the inputs and said input data associated with said second one or more of the inputs to an independent variable scale based on a third interval, thereby generating reconciled input data associated with said first one or more of the inputs and said second one or more of the inputs having an associated independent variable sequence based on said third interval.

67. (Original) The system of claim 61, wherein the input data associated with a first one or more of the inputs is asynchronous with respect to an independent variable, and wherein the input data associated with a second one or more of the inputs is synchronous with an associated independent variable sequence based on an interval; and

wherein said means for merging comprises:

means for reconciling said asynchronous input data associated with said first one or more of the inputs to said synchronous input data associated with said second one or more of the inputs, thereby generating reconciled input data associated with said first one or more of the inputs, and wherein said reconciled input data comprise synchronous input data having an associated independent variable sequence based on said interval.

68. (Currently Amended) A [[carrier]] memory medium which stores program instructions for preprocessing input data prior to input to a support vector machine having multiple inputs, each of the inputs associated with a portion of the input data, wherein said program instructions are executable to:

receive and store the input data, wherein the input data associated with at least two of the inputs are on different time scales relative to each other;

time merge the input data for the inputs such that all of the input data are reconciled to the same time scale; and

output the reconciled time merged data as reconciled data, the reconciled data comprising the input data to the support vector machine;

provide the reconciled data as input data to the multiple inputs of the support vector machine.

69. (Currently Amended) The [[carrier]] memory medium of claim 68, wherein the support vector machine comprises a non-linear model having a set of model parameters defining a representation of a system, said model parameters capable of being trained; and

wherein the input data comprise training data including target input data and target output data, wherein said reconciled data comprise reconciled training data including reconciled target input data and reconciled target output data, and wherein said reconciled target input data and reconciled target output data are both based on a common time scale;

wherein said program instructions are further executable to:

train the support vector machine according to a predetermined training algorithm applied to said reconciled target input data and said reconciled target output data to develop model parameter values such that said support vector machine has stored therein a representation of the system that generated the target output data in response to the target input data.

70. (Currently Amended) The [[carrier]] memory medium of claim 68, wherein the support vector machine comprises a non-linear model having a set of model parameters defining a representation of a system, wherein said model parameters of said support vector machine have been trained to represent said system; and

wherein the input data comprise run-time data, and wherein said reconciled data comprise reconciled run-time data;

wherein said program instructions are further executable to:

input said reconciled run-time data into the support vector machine to generate run-time output data, wherein said run-time output data comprise one or both of control parameters for said system and predictive output information for said system.

71. (Currently Amended) The [[carrier]] memory medium of claim 70, wherein said control parameters are usable to determine control inputs to said system for run-time operation of said system.

72. (Currently Amended) The [[carrier]] memory medium of claim 68, wherein the input data associated with at least one of the inputs has missing data in an associated time sequence; and

wherein in performing said time merging said program instructions are further executable to:

reconcile said input data to fill in said missing data.

73. (Currently Amended) The [[carrier]] memory medium of claim 68, wherein the input data associated with a first one or more of the inputs has an associated time sequence based on a first time interval, and a second one or more of the inputs has an associated time sequence based on a second time interval; and

wherein in performing said time merging said program instructions are further executable to:

reconcile said input data associated with said first one or more of the inputs to said input data associated with said second one or more of the inputs, thereby generating reconciled input data associated with said at least one of the inputs having an associated time sequence based on said second time interval.

74. (Currently Amended) The [[carrier]] memory medium of claim 68, wherein the input data associated with a first one or more of the inputs has an associated time sequence

based on a first time interval, and wherein the input data associated with a second one or more of the inputs has an associated time sequence based on a second time interval; and

wherein in performing said time merging said program instructions are further executable to:

reconcile said input data associated with said first one or more of the inputs and said input data associated with said second one or more of the inputs to a time scale based on a third time interval, thereby generating reconciled input data associated with said first one or more of the inputs and said second one or more of the inputs having an associated time sequence based on said third time interval.

75. (Currently Amended) The [[carrier]] memory medium of claim 68, wherein the input data associated with a first one or more of the inputs is asynchronous, and wherein the input data associated with a second one or more of the inputs is synchronous with an associated time sequence based on a time interval; and

wherein in performing said time merging said program instructions are further executable to:

reconcile said asynchronous input data associated with said first one or more of the inputs to said synchronous input data associated with said second one or more of the inputs, thereby generating reconciled input data associated with said first one or more of the inputs, wherein said reconciled input data comprise synchronous input data having an associated time sequence based on said time interval.

76. (Currently Amended) The [[carrier]] memory medium of claim 68, wherein in performing said receiving and storing said program instructions are further executable to:

arrange the input data in a predetermined format.

77. (Currently Amended) The [[carrier]] memory medium of claim 76, wherein, prior to said arranging in said predetermined format, the input data has a predetermined time reference for all data, such that each piece of input data has associated therewith a time value relative to said predetermined time reference.

78. (Currently Amended) The [[carrier]] memory medium of claim 68, wherein each piece of data has associated therewith a time value corresponding to the time the input data was generated.

79. (Currently Amended) The [[carrier]] memory medium of claim 68, wherein said program instructions are further executable to:

apply a predetermined algorithm to the input data prior to said performing said time merging.

80. (Currently Amended) The [[carrier]] memory medium of claim 79, wherein each piece of data has associated therewith a time value corresponding to the time the input data was generated.

81. (Currently Amended) The [[carrier]] memory medium of claim 79, wherein said program instructions are further executable to:

select said predetermined algorithm from a group of available algorithms.

82. (Currently Amended) The [[carrier]] memory medium of claim 68, wherein said program instructions are further executable to:

apply a predetermined algorithm to the reconciled time merged data prior to outputting said reconciled time merged data.

83. (Currently Amended) The [[carrier]] memory medium of claim 82, wherein said program instructions are further executable to:

select said predetermined algorithm from a group of available algorithms.

84. (Currently Amended) The [[carrier]] memory medium of claim 68, wherein the input data comprise a plurality of variables, each of the variables comprising an input variable with an associated set of data wherein each of said variables comprises an input to said input buffer; and

wherein each of at least a subset of said variables comprises a corresponding one of

the inputs to the support vector machine.

85. (Currently Amended) The [[carrier]] memory medium of claim 84, wherein said program instructions are further executable to:

receive reconciled data associated with a select one of said input variables; and

introduce a predetermined amount of delay to said reconciled data and output a delayed input variable and associated set of delayed reconciled input data.

86. (Currently Amended) The [[carrier]] memory medium of claim 85, wherein said predetermined amount of delay is a function of an external variable, wherein said program instructions are further executable to:

vary said predetermined amount of delay as a function of said external variable.

87. (Currently Amended) The [[carrier]] memory medium of claim 85, wherein said program instructions are further executable to:

learn said predetermined delay as a function of training parameters generated by a system modeled by the support vector machine.

88. (Currently Amended) The [[carrier]] memory medium of claim 68, wherein said program instructions are further executable to present a graphical user interface (GUI), wherein said GUI is operable to receive user input specifying one or more data manipulation and/or reconciliation operations to be performed on said input data.

89. (Currently Amended) The [[carrier]] memory medium of claim 88, wherein said GUI is further operable to display said input data prior to and after performing said manipulation and/or reconciliation operations on said input data.

90. (Currently Amended) The [[carrier]] memory medium of claim 88, wherein said GUI is further operable to receive user input specifying a portion of said input data for said data manipulation and/or reconciliation operations.